

AMENDMENTS TO THE CLAIMS

1. (Previously amended) A certification processing hardware connected to a terminal device capable of communicating with a server device via a network and executing user certification processing of a user of the terminal device by communicating with the server device, the certification processing hardware comprising:

a storing unit which stores certification information of the user;

an encryption key receiving unit which requests a certification process from the server device and receives an encryption key assigned to the certification process hardware from the server device;

an encryption processing unit which encrypts the certification information by using the received encryption key;

a certification information transmitting unit which transmits the encrypted certification information to the server device;

a certification result information receiving unit which receives encrypted certification result information from the server device;

a decryption processing unit which decrypts the encrypted certification result information by using the encryption key, wherein the decryption processing unit executes a decryption process by using one encryption key only once; and

an execution permitting unit which gives an execution permission for a process comprising communication from the server device to the terminal device when a decryption of the certification result information by the decryption processing unit succeeds.

2. (Previously Cancelled)

3. (Previously amended) A certification processing hardware connected to a terminal device capable of communicating with a server device via a network and executing user

certification processing of a user of the terminal device by communicating with the server device,
the certification processing hardware comprising:

a storing unit which stores certification information of the user;

an encryption key receiving unit which requests a certification process from the server device and receives an encryption key assigned to the certification process hardware from the server device;

an encryption processing unit which encrypts the certification information by using the received encryption key;

a certification information transmitting unit which transmits the encrypted certification information to the server device;

a certification result information receiving unit which receives encrypted certification result information from the server device;

a decryption processing unit which decrypts the encrypted certification result information by using the encryption key;

an execution permitting unit which gives an execution permission for a process comprising communication from the server device to the terminal device when a decryption of the certification result information by the decryption processing unit succeeds; and

a controller which controls the terminal device based on the decrypted certification result information.

4. (Previously amended) A certification processing system comprising:

a server device and a terminal device which can communicate with each other via a network, and hardware which is connected to the terminal device and executes a user

certification process in the terminal device by communicating with the server device, wherein the server device comprises:

an encryption key transmitting unit which transmits an encryption key assigned to the hardware which is making a certification request in response to the certification request from the hardware; and

a certification result information transmitting unit which receives and decrypts encrypted certification information from the hardware and encrypts certification result information to transmit an encrypted certification result information to the hardware, and wherein the hardware comprises:

a storing unit which stores certification information of the user;

an encryption key receiving unit which sends the certification request to the server device and receives the encryption key from the server device;

an encryption processing unit which encrypts the certification information by utilizing the received encryption key;

a certification information transmitting unit which transmits the encrypted certification information to the server device;

a certification result information receiving unit which receives the encrypted certification result information from the server device;

a decryption processing unit which decrypts the encrypted certification result information by using the encryption key, wherein the decryption processing unit executes a decryption process by using one encryption key only once; and

an execution permitting unit which gives execution permission of a process comprising communication from the server device to the terminal device when decryption of

the certification result information by the decryption processing unit succeeds, and wherein the terminal device comprises:

a permission requesting unit which requests the execution permission of the process comprising the communication from the server device to the hardware; and

an executing unit which executes the process after receiving the execution permission from the hardware.

5. (Cancelled)

6. (Previously amended) A method for performing user certification processing for a user of a terminal device communicating with a server device via a network, the method comprising the steps of:

connecting certification processing hardware to the terminal device;

storing certification information of the user in the certification processing hardware;

requesting a certification process from the server device;

receiving, from the server device, an encryption key assigned to the certification processing hardware;

encrypting the certification information by using the received encryption key;

transmitting the encrypted certification information to the server device;

receiving encrypted certification result information from the server device;

decrypting the encrypted certification result information by using the encryption key, wherein the decrypting step is executed by using one encryption key only once; and

giving an execution permission of a process comprising communication from the server device to the terminal device after the decrypting step.

7. (Previously Cancelled)

8. (Previously amended) A method for performing user certification processing for a user of a terminal device communicating with a server device via a network, the method comprising the steps of:

connecting certification processing hardware to the terminal device;

storing certification information of the user in the certification processing hardware;

requesting a certification process from the server device;

receiving, from the server device, an encryption key assigned to the certification processing hardware;

encrypting the certification information by using the received encryption key;

transmitting the encrypted certification information to the server device;

receiving encrypted certification result information from the server device;

decrypting the encrypted certification result information by using the encryption key;

giving an execution permission of a process comprising communication from the server device to the terminal device after the decrypting step; and

controlling the terminal device based on the decrypted certification result information.

9. (Previously amended) A method for performing user certification processing for a user of a terminal device communicating with a server device via a network, the method comprising the steps of:

connecting certification processing hardware to the terminal device;

storing certification information of the user in the certification processing hardware;

sending a certification request from the certification processing hardware to the server device;

transmitting from the server device an encryption key assigned to the certification processing hardware in response to the certification request; and

encrypting the certification information by utilizing the received encryption key;

transmitting the encrypted certification information to the server device;

receiving encrypted certification information from the certification processing hardware;

decrypting the encrypted certification information;

encrypting certification result information;

transmitting the encrypted certification result information to the certification processing hardware;

receiving the encrypted certification result information from the server device;

decrypting the encrypted certification result information by using the encryption key, wherein the decrypting step is executed by using one encryption key only once; and

giving execution permission of a process comprising communication from the server device to the terminal device after the decrypting the encrypted certification result information step; and

executing the process after receiving the execution permission from the hardware.

10. (Cancelled)

11. (Previously added) A certification processing system comprising:

a server device and a terminal device which can communicate with each other via a network, and hardware which is connected to the terminal device and executes a user certification process in the terminal device by communicating with the server device, wherein the server device comprises:

an encryption key transmitting unit which transmits an encryption key assigned to the hardware which is making a certification request in response to the certification request from the hardware; and

a certification result information transmitting unit which receives and decrypts encrypted certification information from the hardware and encrypts certification result information to transmit an encrypted certification result information to the hardware, and wherein the hardware comprises:

a storing unit which stores certification information of the user;

an encryption key receiving unit which sends the certification request to the server device and receives the encryption key from the server device;

an encryption processing unit which encrypts the certification information by utilizing the received encryption key;

a certification information transmitting unit which transmits the encrypted certification information to the server device;

a certification result information receiving unit which receives the encrypted certification result information from the server device;

a decryption processing unit which decrypts the encrypted certification result information by using the encryption key;

a controller which controls the terminal device based on the decrypted certification result information; and

an execution permitting unit which gives execution permission of a process comprising communication from the server device to the terminal device when decryption of the certification result information by the decryption processing unit succeeds, and wherein the terminal device comprises:

a permission requesting unit which requests the execution permission of the process comprising the communication from the server device to the hardware; and

an executing unit which executes the process after receiving the execution permission from the hardware.

12. (Previously added) A method for performing user certification processing for a user of a terminal device communicating with a server device via a network, the method comprising the steps of:

connecting certification processing hardware to the terminal device;

storing certification information of the user in the certification processing hardware;

sending a certification request from the certification processing hardware to the server device;

transmitting from the server device an encryption key assigned to the certification processing hardware in response to the certification request; and

encrypting the certification information by utilizing the received encryption key;

transmitting the encrypted certification information to the server device;

receiving encrypted certification information from the certification processing hardware;

decrypting the encrypted certification information;

encrypting certification result information;

transmitting the encrypted certification result information to the certification processing hardware;

receiving the encrypted certification result information from the server device;

decrypting the encrypted certification result information by using the encryption key;

giving execution permission of a process comprising communication from the server device to the terminal device after the decrypting the encrypted certification result information step;

executing the process after receiving the execution permission from the hardware;
and

controlling the terminal device based on the decrypted certification result information.